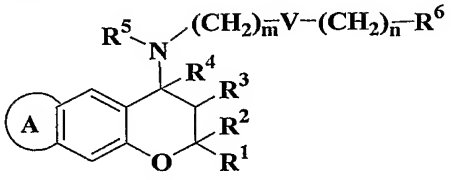
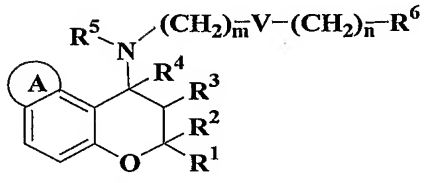
CLAIMS

1. A benzopyran derivative of formula (I) or (II), or pharmaceutically acceptable salt thereof



(I)



(II)

wherein

R^1 and R^2 are independently of each other hydrogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), or C_{6-14} aryl group (wherein the aryl group may be arbitrarily substituted with halogen atom, hydroxy group, nitro group, cyano group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group) or C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom));

R^3 is hydroxy group or C_{1-6} alkylcarbonyloxy group, or R^3 forms a bond together with R^4;

R^4 is hydrogen atom, or R^4 forms a bond together with R^3;

m is an integer of 0 to 4;

n is an integer of 0 to 4;

V is a single bond, CR^7R^8 wherein R^7 is

- C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group, C_{1-6} alkoxy group (wherein C_{1-6} alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{10} wherein R^{10} is halogen atom; hydroxy group; C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom)); C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom); nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C_{1-6} alkylamino group; di-C_{1-6} alkylamino group; C_{1-6}

alkylcarbonylamino group; C_{1-6} alkylsulfonylamino group; aminocarbonyl group; C_{1-6} alkylaminocarbonyl group; di-C_{1-6} alkylaminocarbonyl group; C_{1-6} alkylcarbonyl group; C_{1-6} alkoxycarbonyl group; aminosulfonyl group; C_{1-6} alkylsulfonyl group; carboxy group or C_{6-14} arylcarbonyl group, and when a plurality of R^{10} are present, they may be identical or different from each other); C_{1-6} alkylcarbonyloxy group; nitro group; cyano group; formyl group; formamide group; amino group; C_{1-6} alkylamino group; di-C_{1-6} alkylamino group; C_{1-6} alkylcarbonylamino group; C_{1-6} alkylsulfonylamino group; aminocarbonyl group; C_{1-6} alkylaminocarbonyl group; di-C_{1-6} alkylaminocarbonyl group; C_{1-6} alkylcarbonyl group; C_{1-6} alkoxycarbonyl group; aminosulfonyl group; C_{1-6} alkylsulfonyl group; carboxy group or sulfonyl group);

- C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{10} wherein R^{10} has the above-mentioned meaning);
- hydroxy group;
- C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom); or
- nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C_{1-6} alkylamino group; di-C_{1-6} alkylamino group; C_{1-6} alkylcarbonylamino group; C_{1-6} alkylsulfonylamino group; aminocarbonyl group; C_{1-6} alkylaminocarbonyl group; di-C_{1-6} alkylaminocarbonyl group; C_{1-6} alkylcarbonyl group; C_{1-6} alkoxycarbonyl group; aminosulfonyl group; C_{1-6} alkylsulfonyl group; carboxy group, C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R^{10} wherein R^{10} has the above-mentioned meaning), and

R^8 is

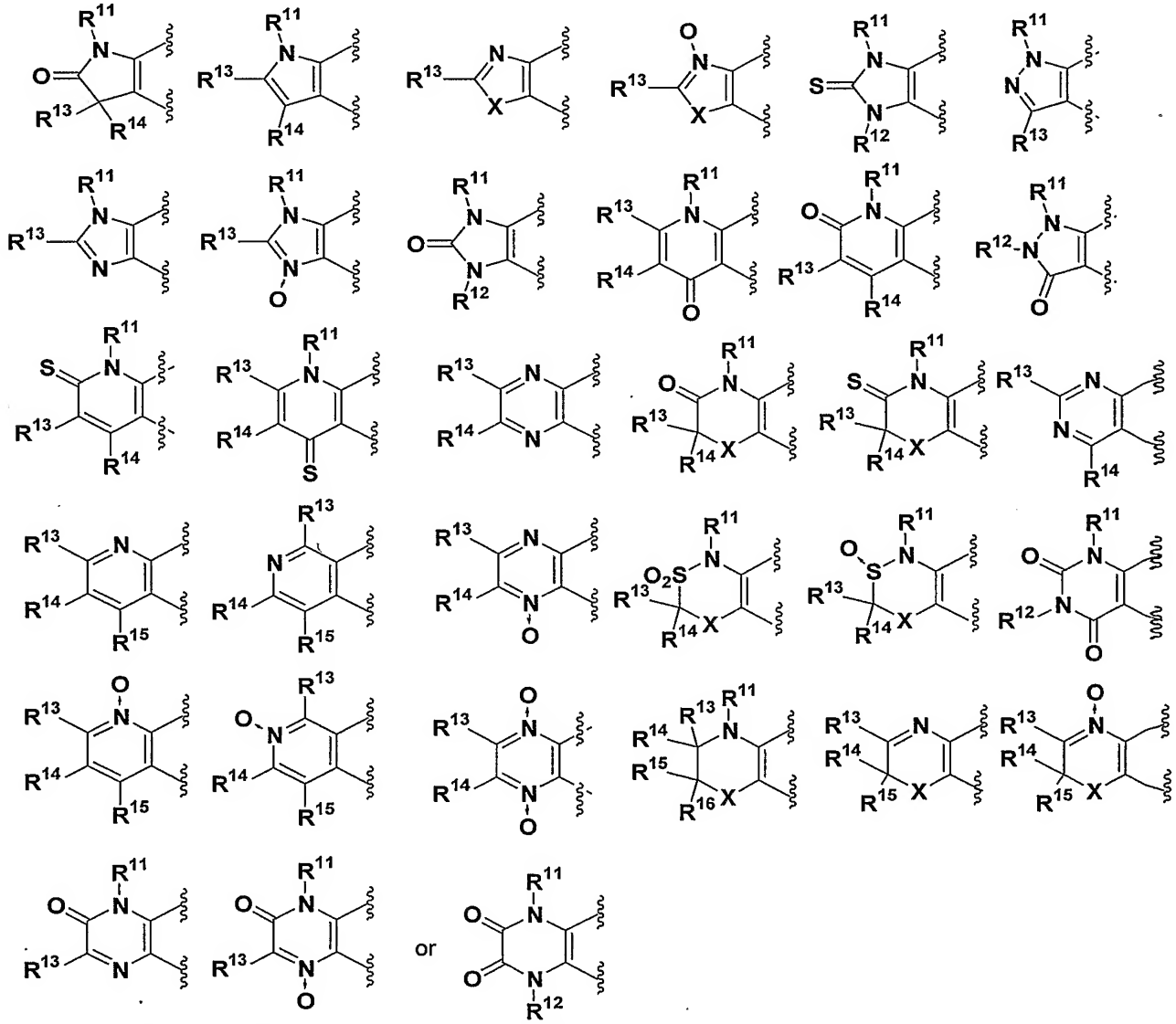
- hydrogen atom,
- C_{1-6} alkyl group (wherein the C_{1-6} alkyl group may be arbitrarily substituted with halogen atom, hydroxy group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10}), C_{1-6} alkylcarbonyloxy group; nitro group; cyano group; formyl group; formamide group; amino group; C_{1-6} alkylamino group; di-C_{1-6} alkylamino group; C_{1-6} alkylcarbonylamino group; C_{1-6} alkylsulfonylamino group; aminocarbonyl group; C_{1-6} alkylaminocarbonyl group; di-C_{1-6} alkylaminocarbonyl group; C_{1-6} alkylcarbonyl group; C_{1-6} alkoxycarbonyl

group; aminosulfonyl group; C_{1-6} alkylsulfonyl group; carboxy group or sulfonyl group);
- C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10});
- hydroxy group;
- C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or
- nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C_{1-6} alkylamino group; di-C_{1-6} alkylamino group; C_{1-6} alkylcarbonylamino group; C_{1-6} alkylsulfonylamino group; aminocarbonyl group; C_{1-6} alkylaminocarbonyl group; di-C_{1-6} alkylaminocarbonyl group; C_{1-6} alkylcarbonyl group; C_{1-6} alkoxycarbonyl group; aminosulfonyl group; C_{1-6} alkylsulfonyl group; carboxy group, C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10}), or
R^7 together with R^8 may represent =O or =S, or
V is NR^9 wherein R^9 is hydrogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group, C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10}), C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{3-8} cycloalkylcarbonyl group, C_{1-6} alkoxycarbonyl group, C_{1-6} alkylsulfonyl group, carboxy group, C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group), C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{3-8} cycloalkylcarbonyl group, C_{1-6} alkoxycarbonyl group, C_{1-6} alkylsulfonyl group, C_{6-14} arylsulfonyl group, C_{2-9} heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10}), carboxy group; C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R^{17} wherein R^{17} has the same meaning as R^{10}); or
V is O, S; SO or SO_2;
R^5 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be

arbitrarily substituted with halogen atom), or hydroxy group); and
R^6 is
- hydrogen atom,
- C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group),
- C_{3-8} cycloalkyl group, C_{3-8} cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group),
- amino group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{6-14} arylamino group, C_{2-9} heteroarylamino group (wherein each of the arylamino group or heteroarylamino group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10});
- C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}); or
- C_{2-9} heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the above-mentioned meaning), hydroxy group, nitro group, cyano group, formyl group, formamide group, amino group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{1-6} alkylcarbonylamino group, C_{1-6} alkylsulfonylamino group, aminocarbonyl group, C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{1-6} alkoxycarbonyl group; aminosulfonyl group, C_{1-6} alkylsulfonyl group, carboxy group or C_{6-14} arylcarbonyl group);
A is 5-, 6- or 7-member ring fused with benzene ring (wherein the 5-, 6- or 7-member ring may be arbitrarily substituted with 1 to 6 R^{21} wherein R^{21} has the same meaning

as R^{10}, and when a plurality of R^{21} are present, they may be identical or different from each other), as constituent atom of the ring, oxygen atom, nitrogen atom or sulfur atom may be contained in the number of 1 to 3 alone or in a combination thereof, the number of unsaturated bond in the ring is 1, 2 or 3 including an unsaturated bond of the benzene ring to be fused, carbon atoms constituting the ring may be carbonyl or thiocarbonyl.

2. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein A is



wherein R^{11} and R^{12} are independently of each other hydrogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy

group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group, C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{19} wherein R^{19} has the same meaning as R^{10}), C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{3-8} cycloalkylcarbonyl group, C_{1-6} alkoxycarbonyl group, C_{1-6} alkylsulfonyl group, carboxy group, C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{19} wherein R^{19} has the same meaning as R^{10}), C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{3-8} cycloalkylcarbonyl group, C_{1-6} alkoxycarbonyl group, C_{1-6} alkylsulfonyl group, C_{6-14} arylsulfonyl group, C_{2-9} heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R^{19} wherein R^{19} has the same meaning as R^{10}), carboxy group; C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R^{19} wherein R^{19} has the same meaning as R^{10}), R^{13}, R^{14}, R^{15} and R^{16} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, hydroxy group, C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10}), C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{3-8} cycloalkylcarbonyl group, C_{1-6} alkoxycarbonyl group, C_{1-6} alkylsulfonyl group, carboxy group, C_{6-14} arylcarbonyl group or C_{2-9} heteroarylcarbonyl group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), carboxy group, amino group, hydroxy group, C_{6-14} aryl group or C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10})), C_{1-6} thioalkoxy group (wherein the thioalkoxy group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), carboxy group, hydroxy group, C_{6-14} aryl group or C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10})), hydroxy group, C_{6-14} aryl group, C_{2-9} heteroaryl

group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10}), C_{1-6} alkylcarbonyloxy group, nitro group, cyano group, formyl group, formamide group, amino group, sulfonyl group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{6-14} arylamino group, C_{2-9} heteroarylamino group (wherein each of the arylamino group or heteroarylamino group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10}), C_{1-6} alkylcarbonylamino group, C_{1-6} alkylsulfonylamino group, aminocarbonyl group, C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{6-14} arylcarbonyl group, C_{2-9} heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10}), C_{1-6} alkoxycarbonyl group, aminosulfonyl group, C_{1-6} alkylsulfonyl group, C_{6-14} arylsulfonyl group, C_{2-9} heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the same meaning as R^{10}), carboxy group, sulfonyl group or C_{2-9} heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{20} wherein R^{20} has the above-mentioned meaning), hydroxy group, nitro group, cyano group, formyl group, formamide group, amino group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{1-6} alkylcarbonylamino group, C_{1-6} alkylsulfonylamino group, aminocarbonyl group, C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{1-6} alkoxycarbonyl group, aminosulfonyl group, C_{1-6} alkylsulfonyl group, carboxy group or C_{6-14} arylcarbonyl group),
X is O, S, SO or SO_2.

3. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 2, wherein R^1 and R^2 are methyl group, R^3 is hydroxy group, and R^4 is hydrogen atom.

4. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 3, wherein R^5 is hydrogen atom, m is an integer of 0 to 3 and n is an integer of 0 to 2.

5. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is a single bond.

6. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R^6 is C_{6-14} aryl group wherein the aryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}.

7. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 6, wherein m is 2.

8. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 7, wherein R^6 is C_{6-14} aryl wherein the aryl group may be arbitrarily substituted with 1 to 3 halogen atom or amino group, and when a plurality of substituents are present, they may be identical or different from each other.

9. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R^6 is C_{2-9} heteroaryl group wherein the heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}.

10. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 9, wherein m is 2.

11. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 10, wherein R^6 is 2-pyridyl group, 3-pyridyl group or 4-pyridyl group.

12. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R^6 is C_{2-4} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen

atom), amino group, carboxy group or hydroxy group), C_{3-8} cycloalkyl group, C_{3-8} cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or C_{2-9} heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group or amino group).

13. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 12, wherein m is 2.

14. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 13, wherein R^6 is n-propyl group, i-propyl group, c-pentyl group, c-hexyl group, 1-c-pentenyl group, 2-c-pentenyl group, 3-c-pentenyl group, 1-c-hexenyl group, 2-c-hexenyl group or 3-c-hexenyl group.

15. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is CR^7R^8.

16. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or R^7 and R^8 together are =O or =S.

17. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 16, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R^7 and R^8 together are =O.

18. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 17, wherein R^7 is hydroxy group, and R^8 is hydrogen atom.

19. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein m is an integer of 1 to 2, n is 0, and R^6 is C_{6-14} aryl group or C_{2-9} heteroaryl group wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}.

20. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 19, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or R^7 and R^8 together are =O or =S.

21. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 20, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R^7 and R^8 together are =O.

22. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 21, wherein R^7 is hydroxy group, and R^8 is hydrogen atom.

23. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 22, wherein m is 1, n is 0, and R^6 is C_{6-14} aryl group wherein the aryl group may be arbitrarily substituted with 1 to 3 halogen atom or amino group, when and when a plurality of substituents are present, they may be identical or different from each other.

24. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein m is an integer of 1 to 2, n is 0, and R^6 is C_{1-4} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{3-8} cycloalkyl group, C_{3-8} cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino, carboxy group or hydroxy group), or C_{2-9} heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

25. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 24, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein C_{1-6} alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein C_{1-6} alkoxy group may be arbitrarily substituted with halogen atom), C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein C_{1-6} alkoxy group may be arbitrarily substituted with halogen atom),

amino group, carboxy group or hydroxy group), or R^7 and R^8 together are =O or =S.

26. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 25, wherein R^7 is hydroxy group, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R^8 is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R^7 and R^8 together are =O.

27. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 26, wherein R^7 is hydroxy group, and R^8 is hydrogen atom.

28. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 27, wherein R^6 is n-propyl group, i-propyl group, c-pentyl group, c-hexyl group, 1-c-pentenyl group, 2-c-pentenyl group, 3-c-pentenyl group, 1-c-hexenyl group, 2-c-hexenyl group or 3-c-hexenyl group.

29. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein R^7 and R^8 together are =O or =S, and R^6 is amino group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{6-14} arylamino group, C_{2-9} heteroarylamino group (wherein each of the arylamino group or heteroarylamino group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}), or C_{2-9} heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

30. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is NR^9.

31. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 30, wherein m is an integer of 1 to 3, n is 0, and R^6 is C_{6-14} aryl

group or C_{2-9} heteroaryl group wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same meaning as R^{10}.

32. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 31, wherein m is 2.

33. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 30, wherein m is an integer of 1 to 3, n is 0 and R^6 is hydrogen atom, C_{2-4} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{3-8} cycloalkyl group, C_{3-8} cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or C_{2-9} heterocyclyl group (wherein the heterocyclyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

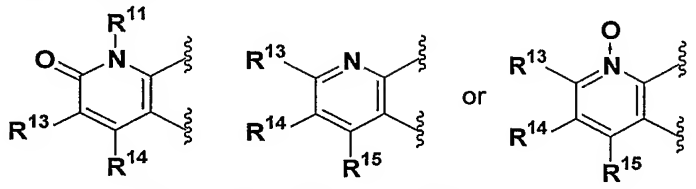
34. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 33, wherein m is 2.

35. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 3, which is the compound of formula (I).

36. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 3, which is the compound of formula (II).

37. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R^{11}, R^{13}, R^{14} and R^{15} have the above-mentioned meanings.

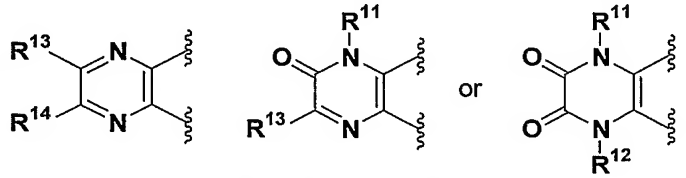
38. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 37, wherein R^{11} is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), and R^{13}, R^{14} and R^{15} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{3-8} cycloalkyl group (wherein the cycloalkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), C_{1-6} alkoxyl group (wherein the alkoxyl group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{1-6} alkylcarbonyl group, aminocarbonyl group, amino group, carboxy group or cyano group.

39. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 38, wherein R^{11} is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R^{13}, R^{14} and R^{15} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), carboxy group, amino group or cyano group.

40. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 39, wherein R^{11} is hydrogen atom, R^{13} is hydrogen atom, halogen atom, carboxy group or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R^{14} is hydrogen atom,

and R^{15} is hydrogen atom, halogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group).

41. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



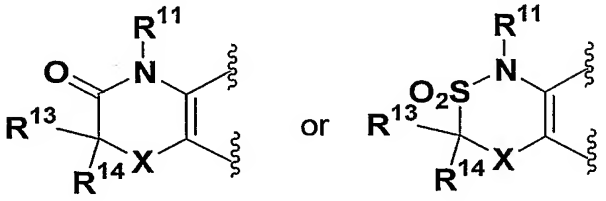
wherein R^{11}, R^{12}, R^{13} and R^{14} have the above-mentioned meanings.

42. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 41, wherein R^{11} and R^{12} are independently of each other hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), and R^{13} and R^{14} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), C_{1-6} alkylcarbonyl group, amino group or cyano group.

43. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 42, wherein R^{11} and R^{12} are independently of each other hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R^{13} and R^{14} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), amino group or cyano group.

44. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 43, wherein R^{11}, R^{12}, R^{13} and R^{14} are hydrogen atom.

45. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R^{11}, R^{13} and R^{14} have the above-mentioned meanings.

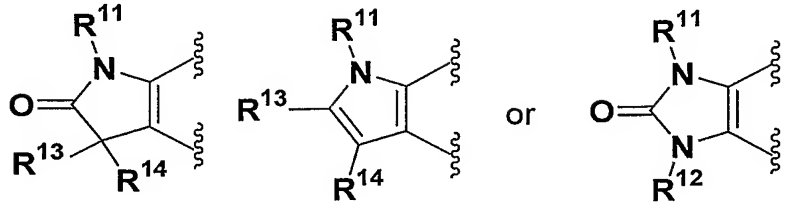
46. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 45, wherein R^{11} is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), R^{13} and R^{14} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), amino group or cyano group, and X is O, S, SO or SO_2.

47. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 46, wherein R^{11} is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R^{13} and R^{14} are independently of each other hydrogen atom, halogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and X is O.

48. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 47, wherein R^{11} is hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R^{13} and R^{14} are hydrogen atom, and X is O.

49. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R^{11}, R^{12}, R^{13} and R^{14} have the above-mentioned meanings.

50. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 49, wherein R^{11} and R^{12} are independently of each other hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group (wherein the aryl group may be arbitrarily substituted with halogen atom, hydroxy group or C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom)), amino group or hydroxy group), and R^{13} and R^{14} are independently of each other hydrogen atom, halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), amino group or cyano group.

51. The benzopyran derivative or pharmaceutically acceptable salt thereof accoding to claim 50, wherein R^{11} and R^{12} are independently of each other hydrogen atom or C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R^{13} and R^{14} are hydrogen atom.

52. A benzopyran derivative or pharmaceutically acceptable salt thereof which is 2,2,7,9-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol, 2,2,7-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol, 3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carbonitrile,
3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carboxamide,

{3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-7-yl}ethanone,
3,3-dimethyl-1-[(2-phenylethyl)amino]-2,3-dihydro-1*H*-pyrano[3,2-f]quinolin-2-ol,
7-hydroxymethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carboxylic acid,
4-(benzylamino)-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[(1,3-benzodioxol-5-yl)methyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(3-phenylpropyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(2-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-chlorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[2-(4-aminophenyl)ethyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-hydroxy-2-phenylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylbutyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[2-(1,3-benzodioxol-5-yl)ethyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(1-piperidinyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(1-methyl-2-pyrrolidinyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-[(2-anilinoethyl)amino]-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-({2-[ethyl(3-methylphenyl)amino]ethyl}amino)-2,2,9-trimethyl-3,4-dihydro-2

H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[(1-ethyl-(R)-2-pyrrolidinyl)methyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2,2-diethoxyethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(3-thienyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[2-(1-pyrazolylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(4-methylpyrazol-1-yl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-chloropyrazol-1-yl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(2-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(3-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(4-pyridyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-ethylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isobutylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(cyclopropylmethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isopentylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclopentylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(1-cyclopentenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(5-methylhexan-2-yl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclohexylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[{2-(tetrahydropyran-4-yl)ethyl}amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

7-chloro-2,2,9-trimethyl-4-[{2-(4-thianyl)ethyl}amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-({[6-(4-chlorophenyl)-3-pyridinyl]methyl}amino)-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-[(2-benzofurylmethyl)amino]-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-hydroxypentyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-{[2-(2-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2-dimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2,7,8-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
7,8-diethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2,8-trimethyl-7-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2,7-trimethyl-8-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2,8-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-cyclohexylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
3-hydroxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-2,3,4,6-tetrahydro-pyrano[2,3-f]benzimidazol-7-one,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-anthracen-3-on,
7-hydroxy-4,6,6-trimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-anthracen-3-on,
6,6-dimethyl-8-[(2-phenylethyl)amino]-2,3,4,6,7,8-hexahydro-1,5-dioxa-4-aza-anthracen-7-ol,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-1,6,7,8-tetrahydro-4,5-dioxa-1-aza-a

nthracen-2-on,
6,6-dimethyl-8-[(2-phenylethyl)amino]-1,2,3,6,7,8-hexahydro-4,5-dioxa-1-aza-anthrac en-7-ol,
9-hydroxymethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]q uinolin-3-ol,
2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-3,7-dio l,
7-aminomethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]q uinolin-3-ol,
7-chloro-2,2,9-trimethyl-6λ5-oxy-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-6λ5-oxy-3,4-dihydro-2*H*-pyr ano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6λ5-oxy-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-7-hydroxymethyl-2,2,9-trimethyl-3,4-dihydro-2*H*-pyr ano[2,3-g]quinolin-3-ol or
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol.

53. A benzopyran derivative or pharmaceutically acceptable salt thereof which is
2,2,7-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3,3-dimethyl-1-[(2-phenylethyl)amino]-2,3-dihydro-1*H*-pyrano[3,2-f]quinolin-2-ol,
7-hydroxymethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin -3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(2-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-chlorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3-hydroxy-2,2,9-trimethyl-4-[2-(phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinol ine-7-carboxylic acid,
4-{[2-(4-aminophenyl)ethyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-

g]quinolin-3-ol,
7-chloro-4-[(2-hydroxy-2-phenylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(1-piperidinyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-chloropyrazol-1-yl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(2-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(3-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{[2-(4-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isopentylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclopentylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(1-cyclopentenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclohexylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-hydroxypentyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-{[2-(2-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
2,2-dimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-cyclohexylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-anthracen-3-on,
7-hydroxy-4,6,6-trimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-

anthracen-3-one,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-7,8-dihydro-1*H*,6*H*-4,5-dioxa-1-aza-anthracen-2-one,
9-hydroxymethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-3,7-diol,
7-aminomethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6λ5-oxy-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-6λ5-oxy-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6λ5-oxy-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-7-hydroxymethyl-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol or
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol.

54. A pharmaceutical characterized by comprising the benzopyran derivative or pharmaceutically acceptable salt thereof according to any one of claims 1 to 53 as an active ingredient.

55. A pharmaceutical for treating arrhythmia characterized by comprising the benzopyran derivative or pharmaceutically acceptable salt thereof according to any one of claims 1 to 53 as an active ingredient.